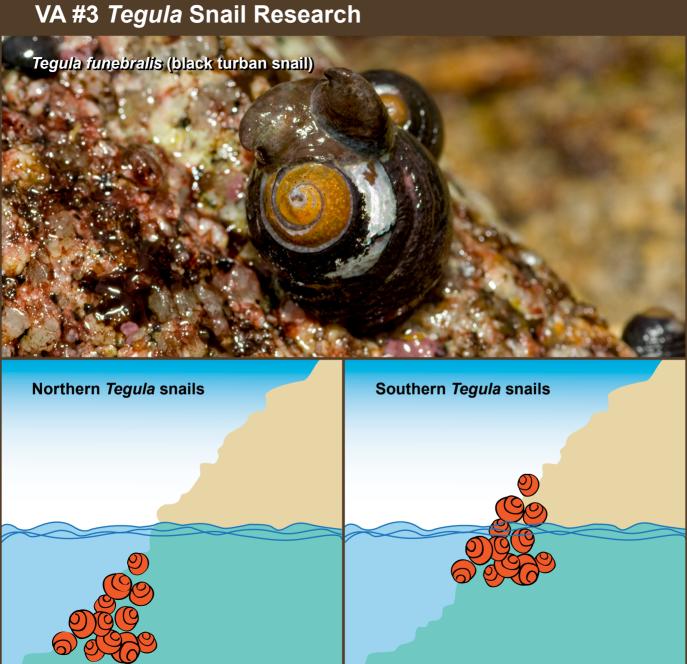
# VA #1 Pupfish



# **VA #2 California Lakes: Then and Now**





### VA #4 Evolution Notes 1

#### Variation...

A species of organisms displays variety in inherited traits.

If the genes for a trait do not exist in a population, that trait cannot be selected.

Genetic mutations result in different new traits (some beneficial, some detrimental, some with no effect).

Mutations are random, but selection of their traits expressed in a population is not random.

... allows for Natural Selection.

### VA #5 Evolution Notes 2

#### **Environment...**

In certain environments, some traits are more useful than others.

Those traits that are favorable in that environment are adaptations.

Adaptations allow an organism to survive and reproduce in a particular environment. When an environment changes (due to human activities, natural disasters, and more), the traits that are adaptive and get "selected" may change.

... results in Natural Selection.

### VA #6 Evolution Notes 3



A trait is more likely to be passed on to the next generation when it helps the organism to:

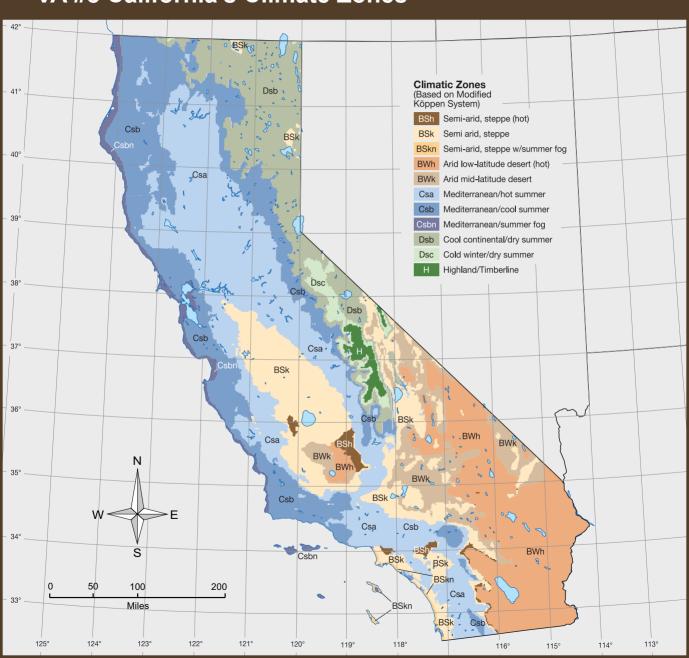
- Survive (avoid predators; find food)
- Find a mate
- Reproduce

Traits that help an organism to do these three things (survive, find a mate, and reproduce) are more likely to be found in more offspring in subsequent populations.

# VA #7 Darwin's Finches



## **VA #8 California's Climate Zones**



# **VA #9 Wild Bananas**



# **VA #10 Human Influence on Evolution**

